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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

MAILED

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Technology Center 2600

Application Number: 10/606,189
Filing Date: June 25, 2003
Appellant(s): CONTI, PATRICK

Michael W. Taylor
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 09/24/2007 appealing from the Office action mailed 08/11/2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

2002/0180510	Tamura	12-2002
2003/0001787	Clifton	01-2003
4386327	Ogawa	05-1983
3840886	Ashar et al.	10-1974

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 9-14, 18, 26 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura (US2002/0180510) in view of Clifton (US2003/0001787), Ogawa (US Patent#4386327), and Ashar et al. (US Patent#3840886).

Regarding claim 9, Tamura teaches a radio-frequency (RF) switching device (100 of Fig. 1) comprising:

a) an input/output terminal (101 of Fig. 1);

b) a plurality of RF channels (102 and 103 of Fig. 1) connected to said input/output terminal (paragraph 0031); and

c) switching means for selecting one of said plurality of RF channels based upon a switching control signal (abstract), said switching means comprising

a respective control module (Fig. 11C) connected to each RF channel (302 of Fig. 11C), each control module comprising

a control input (CONT of Fig. 11C) for receiving the switching control signal,

a PIN diode (D1 of Fig. 11C) having a cathode connected to said input/output terminal, and an anode, and

a control transistor (Q1 of Fig. 11C) comprising a control terminal connected to said control input (CONT of Fig. 11C), and a first conducting terminal connected to the anode of said PIN diode (D1 of Fig. 11C),

But, Tamura does not expressly disclose the amount of RF channel selection in term of plurality and the first conducting terminal forming a common node between an anode of a PN diode formed by the control terminal and the first conducting terminal of said control transistor and a corresponding parasitic PN diode.

Clifton teaches the limitation of a frequency-switching device having a plurality of frequency channels, which would have been obvious to one of ordinary skill in the art to put more than two RF channels with respective control modules.

Ashar et al. teach using lateral transistor for low-voltage and fast-switching application (column 5 lines 12-29), which would have been obvious to one of ordinary skill in the art at the time the invention was made to use lateral transistor for control transistor, in order to have low-voltage and fast-switching performance.

Ogawa teaches utilizing a two-diode circuit as an equivalent of a control transistor (Q20 of Fig. 4, column 3 lines 28-39), which means the control transistor of Tamura can be recognized as an equivalent two-diode circuit. So, it would have been obvious to one of ordinary skill in the art to recognize that the first conducting terminal (302 of Fig. 11C of Tamura) forming a common node between an anode of a PN diode (C10 of Fig. 4 of Ogawa) formed by the control terminal and the first conducting terminal of said control transistor and a corresponding parasitic PN diode (C20 of Fig. 4 of Ogawa) with using lateral transistor taught by Ashar et al. for low-voltage application. It is also obvious that one of ordinary skill in the art would be able to replace the bipolar transistor or control transistor of Tamura with an equivalent circuit or another type of transistor by design preference because they all perform the function of a transistor. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the switching device having more than two RF switching channels taught by Clifton and using lateral transistor taught by Ashar et al. and forming equivalent transistor structure taught by Ogawa into the RF switching device of Tamura, in order to provide a plurality of RF frequencies switching with low-voltage and fast-switching performance.

Regarding claim 10, Tamura, Clifton, Ashar et al. and Ogawa teach the limitation of claim 9.

Tamura teaches having a control transistor comprises a NPN transistor and the control terminal forms the base and the first conducting terminal forms the emitter (Q1 of Fig. 11C), but Tamura, Clifton and Ogawa do not expressly disclose having control transistor comprises a lateral PNP transistor, and the control terminal forms the base and the first conducting terminal forms the collector of said lateral.

Ashar et al. teach using lateral PNP transistor for low-voltage and fast-switching application (column 1 line 32 to column 2 line 3, column 5 lines 12-29).

At the time the invention was made, it would have been to a person of ordinary skill in the art to choose using either PNP transistor or NPN transistor as shown by Ashar et al. Applicant has not disclosed that using a PNP transistor provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with switching circuitry using NPN transistor because they perform exactly the same except operating with opposite polarities. Thus, it would have been obvious to one of ordinary skill in the art to modify the NPN transistor to obtain the invention as specified in the claim.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate using lateral PNP transistor taught by Ashar et al. into the modified RF switching device, remote terminal and method of Tamura and Clifton, in order to obtain low-voltage and faster switching in performance.

Regarding claim 11, Tamura, Clifton, Ashar et al. and Ogawa teach the limitation of claim 9.

Clifton teaches further comprising a substrate, and wherein the switching circuit is formed therein so that the RF switching device is an integrated circuit (paragraph 0036).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the switching circuit of the modified RF switching device of Tamura, Ashar et al. and Ogawa into integrated circuit taught by Clifton, in order to reduce the size of the circuitry.

Regarding claim 12, Tamura, Clifton, Ashar et al. and Ogawa teach the limitation of claim 9. Clifton teaches said plurality of RF channels comprise channels dedicated to transmission and channels dedicated to reception (Fig. 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate plurality of frequency channels dedicated to transmission and reception taught by Clifton into the modified RF switching device of Tamura, Ashar et al. and Ogawa, in order to provide plurality of frequency channels as a transceiver.

Regarding claim 13, Tamura, Clifton, Ashar et al. and Ogawa teach the limitation of claim 12. Clifton teaches said dedicated channels support different transmission standards operating at different frequencies (paragraph 0045).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate supporting different transmission standards taught by Clifton into the modified RF switching device of Tamura, Ashar et al. and Ogawa, in order to provide different transmission standard services.

Regarding claim 14, Tamura, Clifton, Ashar et al. and Ogawa teach the limitation of claim13. Clifton also teaches the different transmission standards comprise GSM, PCS, and WCDMA (paragraph 0045).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate supporting different popular transmission standards taught by Clifton into the modified RF switching device of Tamura, Ashar et al. and Ogawa, in order to provide different popular transmission standard services.

Regarding claims 18, 26, and 36, Tamura, Clifton and Ogawa teach the limitations of claims 15, 23, and 33.

Tamura teaches said control transistor comprises a NPN transistor and the control terminal forms the base and the first conducting terminal forms the emitter (Q1 of Fig. 11C), but Tamura, Clifton and Ogawa do not expressly disclose said control transistor comprises a lateral PNP transistor, and the control terminal forms the base and the first conducting terminal forms the collector of said lateral.

Ashar et al. teach using lateral PNP transistor for low-voltage and fast-switching application (column 1 line 32 to column 2 line 3, column 5 lines 12-29).

At the time the invention was made, it would have been to a person of ordinary skill in the art to choose using either PNP transistor or NPN transistor as shown by Ashar et al. Applicant has not disclosed that using a PNP transistor provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected

Applicant's invention to perform equally well with switching circuitry using NPN transistor because they perform exactly the same except operating with opposite polarities. Thus, it would have been obvious to one of ordinary skill in the art to modify the NPN transistor to obtain the invention as specified in the claim.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate using lateral PNP transistor taught by Ashar et al. into the modified RF switching device, remote terminal and method of Tamura, Clifton, and Ogawa, in order to obtain low-voltage and faster switching in performance.

2. Claims 15-16, 19-24, 27-34, and 37-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura (US2002/0180510) in view of Clifton (US2003/0001787) and Ogawa (US Patent#4386327).

Regarding claim 15, Tamura teaches a radio-frequency (RF) switching device comprising:

a) an input/output terminal (101 of Fig. 1);

b) a plurality of RF channels (102 and 103 of Fig. 1) connected to said input/output terminal; and

c) a switching circuit (100 of Fig. 1, 402 of Fig. 4) for selecting one of said plurality of RF channels based upon a switching control signal, said switching circuit comprising:

a plurality of control modules (Fig. 11C) connected to said plurality of RF channels (102 and 103 of Fig. 1), each control module comprising:

a diode (D1 of Figs. 1 and 11C) having a cathode connected to said input/output terminal, and an anode, and

a control transistor (Q1 of Figs. 1 and 11C) comprising a control terminal for receiving the switching control signal (CONT of Fig. 11C), and a first conducting terminal connected to the anode of said diode (Fig. 11C).

But, Tamura does not expressly disclose the amount of RF channel selection in term of plurality, and the first conducting terminal forming a common node between an anode of a diode formed by the control terminal and the first conducting terminal of said control transistor, and a corresponding parasitic diode.

Clifton teaches a frequency-switching device having a plurality of frequency channels, which would have been obvious to one of ordinary skill in the art to put more than two RF channels with respective control modules in order to provide a plurality of RF frequencies switching. Ogawa teaches utilizing a two-diode circuit as an equivalent of a control transistor (Q20 of Fig. 4, column 3 lines 28-39), which means the control transistor of Tamura can be recognized as an equivalent two-diode circuit. So, it would have been obvious to one of ordinary skill in the art to recognize that the first conducting terminal (302 of Fig. 11C of Tamura) forming a common node between an anode of a PN diode (C10 of Fig. 4 of Ogawa) formed by the control terminal and the first conducting terminal of said control transistor and a corresponding parasitic PN diode (C20 of Fig. 4 of Ogawa). It is also obvious that one of ordinary skill in the art would be able to replace the bipolar transistor or control transistor of Tamura with an equivalent circuit or another type of transistor by design preference because they all perform the function of a transistor.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate having more than two RF switching channels taught by Clifton and transistor structure of Ogawa into the RF switching device of Tamura, in order to provide a plurality of RF frequencies switching.

Regarding claim 23, Tamura teaches a remote terminal for operating in a wireless communication system (paragraph 0001) and comprising:

a) an antenna (401 of Fig. 4);

b) a plurality of RF channels (409 of Fig. 4) connected to said antenna; and

c) a switching circuit (100 of Fig. 1, 402 of Fig. 4) for selecting one of said plurality of RF channels based upon a switching control signal, said switching circuit comprising:

a plurality of control modules (Fig. 11C) connected to said plurality of RF channels (102 and 103 of Fig. 1), each control module comprising:

a diode (D1 of Figs. 1 and 11C) having a cathode connected to said antenna, and an anode, and

a control transistor (Q1 of Figs. 1 and 11C) comprising a control terminal for receiving the switching control signal (CONT of Fig. 11C), and a first conducting terminal connected to the anode of said diode (Fig. 11C).

But, Tamura does not expressly disclose the amount of RF channel selection in term of plurality, and the first conducting terminal forming a common node between an anode of a diode formed by the control terminal and the first conducting terminal of said control transistor, and a corresponding parasitic diode.

Clifton teaches a frequency-switching device having a plurality of frequency channels, which would have been obvious to one of ordinary skill in the art to put more than two RF channels with respective control modules, in order to provide a plurality of RF frequencies switching. Ogawa teaches utilizing a two-diode circuit as an equivalent of a control transistor (Q20 of Fig. 4, column 3 lines 28-39), which means the control transistor of Tamura can be recognized as an equivalent two-diode circuit. So, it would have been obvious to one of ordinary skill in the art to recognize that the first conducting terminal (302 of Fig. 11C of Tamura) forming a common node between an anode of a PN diode (C10 of Fig. 4 of Ogawa) formed by the control terminal and the first conducting terminal of said control transistor and a corresponding parasitic PN diode (C20 of Fig. 4 of Ogawa). It is also obvious that one of ordinary skill in the art would be able to replace the bipolar transistor or control transistor of Tamura with an equivalent circuit or another type of transistor by design preference because they all perform the function of a transistor.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate having more than two RF switching channels taught by Clifton and transistor structure of Ogawa into the remote terminal of Tamura, in order to provide a plurality of RF frequencies switching.

Regarding claim 33, Tamura teaches a method for making a radio-frequency (RF) switching device (abstract) comprising:

a) connecting a plurality of RF channels (102 and 103 of Fig. 1) to an input/output terminal (101 of Fig. 1); and

b) connecting a switching circuit (inherent) to the plurality of RF channels for selecting one of the RF channels based upon a switching control signal (CONT of Fig. 11C), the switching circuit comprising a plurality of control modules (Fig. 11C) connected to the plurality of RF channels, each control module comprising:

a diode (D1 of Figs. 1 and 11C) having a cathode connected to the input/output terminal (101 of Fig. 1), and an anode, and

a control transistor (Q1 of Figs. 1 and 11C) comprising a control terminal (CONT of Fig. 11C) for receiving the switching control signal, and a first conducting terminal connected to the anode of the diode (Fig. 11C).

But, Tamura does not expressly disclose the amount of RF channel selection in term of plurality, and the first conducting terminal forming a common node between an anode of a diode formed by the control terminal and the first conducting terminal of said control transistor, and a corresponding parasitic diode.

Clifton teaches a frequency-switching device having a plurality of frequency channels, which would have been obvious to one of ordinary skill in the art to put more than two RF channels with respective control modules, in order to provide a plurality of RF frequencies switching. Ogawa teaches utilizing a two-diode circuit as an equivalent of a control transistor (Q20 of Fig. 4, column 3 lines 28-39), which means the control transistor of Tamura can be recognized as an equivalent two-diode circuit. So, it would have been obvious to one of ordinary skill in the art to recognize that the first conducting terminal (302 of Fig. 11C of Tamura) forming a common node between an anode of a PN diode (C10 of Fig. 4 of Ogawa) formed by the control terminal and the first conducting terminal of said control transistor and a corresponding parasitic PN

diode (C20 of Fig. 4 of Ogawa). It is also obvious that one of ordinary skill in the art would be able to replace the bipolar transistor or control transistor of Tamura with an equivalent circuit or another type of transistor by design preference because they all perform the function of a transistor.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate having more than two RF switching channels taught by Clifton and transistor structure of Ogawa into the method of Tamura, in order to provide a plurality of RF frequencies switching.

Regarding claims 16, 24 and 34, Tamura, Clifton, and Ogawa teach the limitations of claims 15, 23 and 33.

Tamura teaches the diode comprises a PIN diode (abstract).

Regarding claims 19, 27 and 37, Tamura, Clifton, and Ogawa teach the limitations of claims 15, 23 and 33.

Clifton teaches further comprising a substrate, and wherein the switching circuit is formed therein so that the RF switching device is an integrated circuit (paragraph 0036).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the switching circuit of the RF switching device, remote terminal and method of Tamura into integrated circuit taught by Clifton and Ogawa, in order to reduce the size of the circuitry.

Regarding claims 20, 28 and 38, Tamura, Clifton, and Ogawa teach the limitations of claims 15, 23 and 33.

Clifton teaches said plurality of RF channels comprise channels dedicated to transmission and channels dedicated to reception (Fig. 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate plurality of frequency channels dedicated to transmission and reception taught by Clifton into the RF switching device, remote terminal and method of Tamura and Ogawa, in order to provide plurality of frequency channels as a transceiver.

Regarding claims 21, 29 and 39, Tamura, Clifton, and Ogawa teach the limitations of claims 20, 28 and 28.

Clifton teaches said dedicated channels support different transmission standards operating at different frequencies (paragraph 0045).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate supporting different transmission standards taught by Clifton into the RF switching device, remote terminal and method of Tamura and Ogawa, in order to provide different transmission standard services.

Regarding claims 22, 30 and 40, Tamura, Clifton, and Ogawa teach the limitations of claims 22, 29 and 39.

Clifton teaches the different transmission standards comprise GSM, PCS, and WCDMA (paragraph 0045).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate supporting different popular transmission standards taught by Clifton into the RF switching device, remote terminal and method of Tamura and Ogawa, in order to provide different popular transmission standard services.

Regarding claim 31, Tamura, Clifton, and Ogawa teach the limitation of claim 23.
Clifton teaches said antenna, said plurality of RF channels and said switching circuit are configured so that the remote terminal is a mobile cellular telephone (paragraph 0045).
Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate hardware being configured to work in a cellular telephone taught by Clifton into the remote terminal of Tamura and Ogawa, in order to provide cellular phone service.

Regarding claim 32, Tamura, Clifton, and Ogawa teach the limitation of claim 23.
Clifton teaches said hardware being used in cellular handset (paragraph 0045), where a processor for providing the switching signal to said switching circuit is inherited.
Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate processor in the terminal taught by Clifton into the remote terminal of Tamura and Ogawa, in order to provide switching signal to the RF switching circuit.

(10) Response to Argument

Appellant's arguments with respect to Tamura (US2002/0180510) in view of Clifton (US2003/0001787), Ogawa (US Patent#4386327), and Ashar et al. (US Patent#3840886) have been fully considered but they are not persuasive.

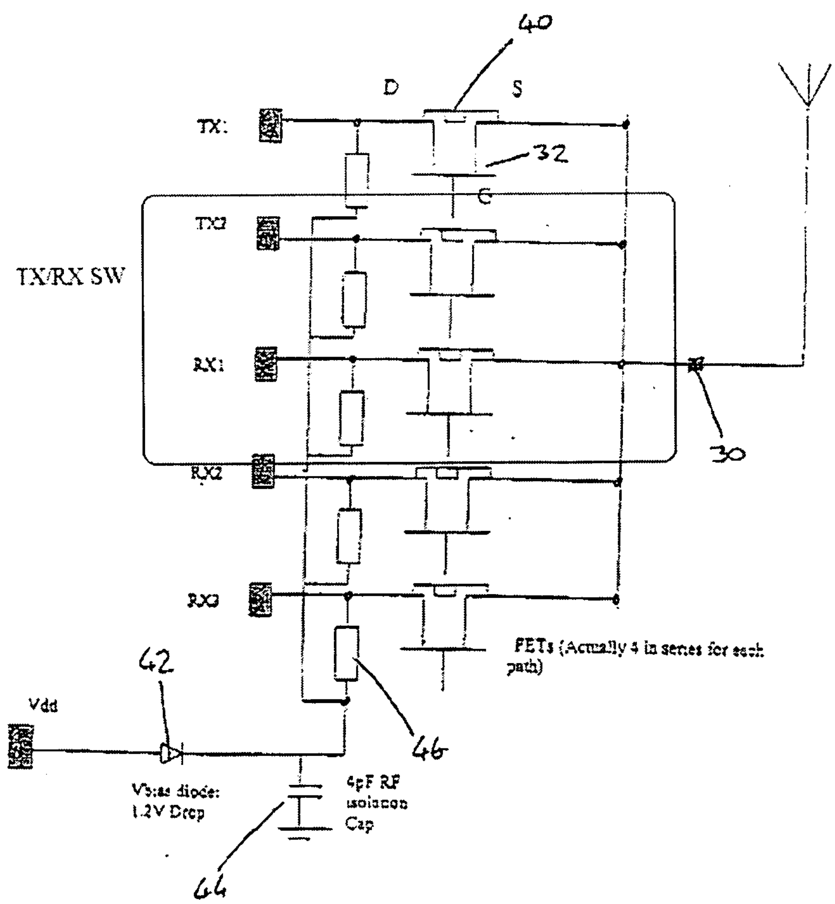
(Claim 9) The appellant argued that Clifton does not make any reference to high frequency switching. Tamura fails to teach a radio frequency (RF) switch can be modified so that the communication device can switch to one of a plurality of channels and there is no motivation to combine with Clifton's multiband transceiver switch due to different structures such as wavelength requirement, transistor type, etc., where adding additional channels to the switching device of Tamura would increase its complexity that results additional work. Appellant also argued that Ashar et al. and Ogawa fail to mention connecting the transistor as a PN diode with a corresponding parasitic PN diode being associated therewith even though Ashar et al. and Ogawa teach using lateral transistor and a transistor formed by two diodes.

In response to the argument, the examiner respectfully disagrees with the appellant's argument. Based on the appellant's claim language "... a plurality of RF channels connected to said input/output terminal...", Tamura actually does teach a RF switch having a plurality of RF channels (transmission channel and reception channel, 102-103 of Fig. 1) connected to an input/output terminal (antenna terminal, 112 of Fig. 1). However, in concerning applicant's intended invention, the examiner introduced Clifton as a secondary reference.

Appellant's filed drawing shows a RF switching device constructed at least two repetitive switching means for different bands (GSM TX & RX's switching means structured as same as DCS/PCS TX & RX's, Fig. 1). Tamura's RF switch teaches the components with respect to

appellant claimed switching means (Fig. 1, and especially Fig. 11C). Clifton teaches a multiband switch, which is constructed with at least two repetitive switching means for different bands (Fig. 2). Thus, it would have been obvious to one of ordinary skill in the art to duplicate RF switching means for an additional RF band taught by Clifton and modify the RF switch of Tamura into a multiband transceiver switch for equipping multiband transceiving capability. The general structure of Clifton's multiband switch with repetitive switching means suggests that a common transmit/receive (TX/RX) switch device can be duplicated for multiband transceiver (such as shown as TX/RX SW in Fig. 2 of Clifton below).

Fig 2 Clifton



Regardless whether Clifton makes reference to high frequency switch or not, both references of Tamura and Clifton are about RF transmit/receive (TX/RX) switches for telecommunication equipment. Incorporation and modification of making a single band switch into a multiband switch does not affect the utility function of switching because there can only be one port (either transmit or receive) to connect with the antenna terminal. Thus, the combination of Tamura and Clifton is proper.

In term of control module of appellant claimed switching means, Tamura already teaches the comprising components such as a control input, a PIN diode, and a control transistor and their connections. The only limitation Tamura doesn't teach is the structure of the control transistor being "the first conducting terminal forming a common node between an anode of a PN diode formed by the control terminal and the first conducting terminal of said control transistor and a corresponding parasitic PN diode" as shown in filed drawing Fig 4 and published specification paragraphs 0032-0035.

The examiner would like to point out that "a PN diode" and "a corresponding parasitic PN diode" are part of the control transistor (shown as Q1 in Figs. 1 & 4 below) according to the filed specification (paragraph 0035) and not interpreted as separated devices.

FIG.1

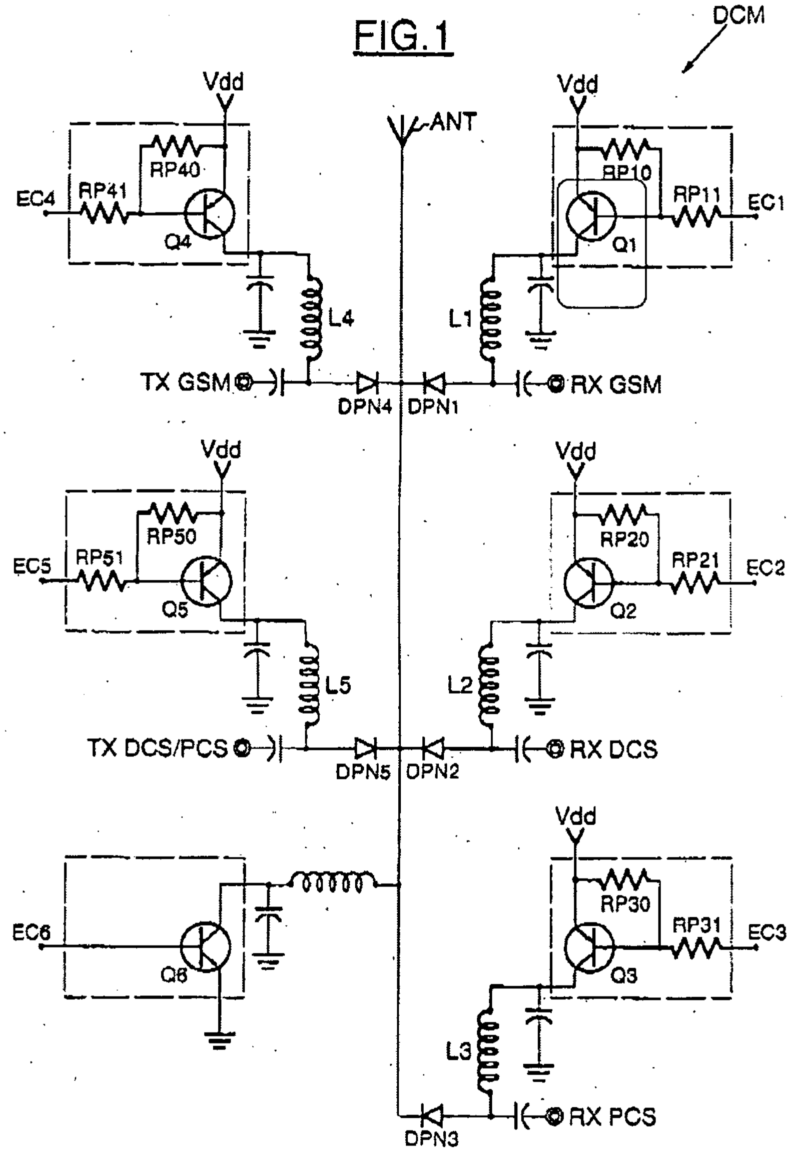
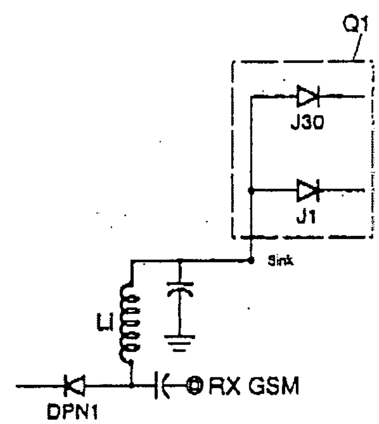


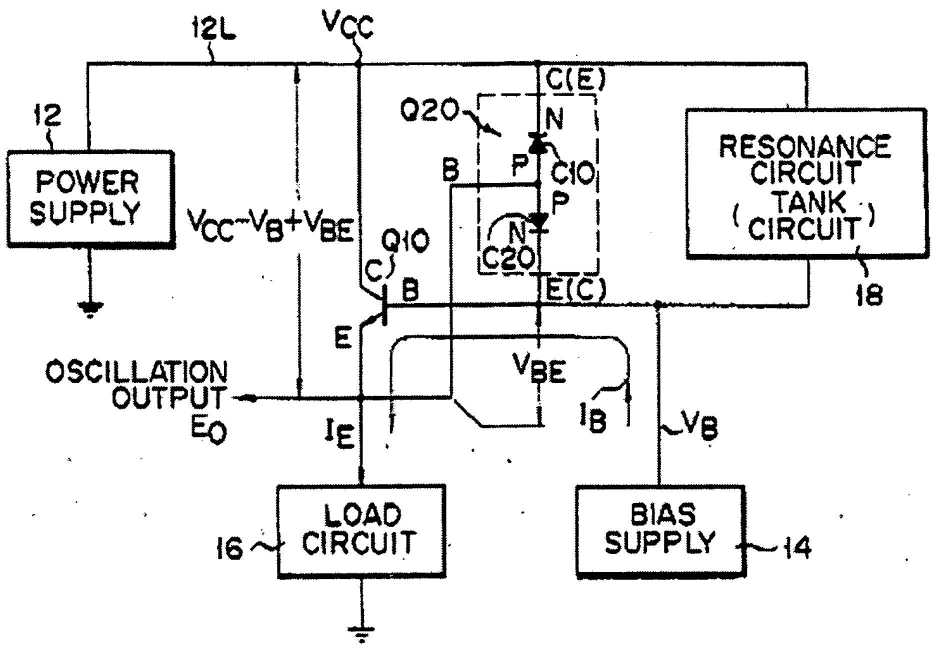
FIG.4



However, Ogawa discloses using a two-diode circuit as an equivalent of a control transistor (shown as Q20 in Fig. 4 below, column 3 lines 28-39).

F I G. 4

Ogawa



Since the above claim lacks descriptive details on the PN diode and the corresponding parasitic PN diode within the control transistor, it would have been obvious to one of ordinary skill in the art to recognize that the control transistor of Tamura (Q1 of Figs 11C as shown below) can be replaced with an equivalent two-diode circuit by design preference.

Tamura

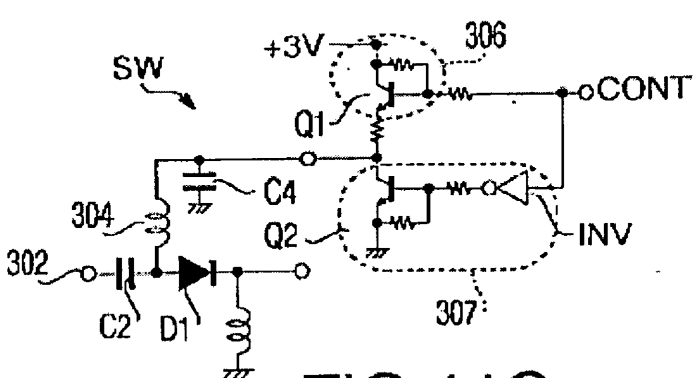


FIG.11C

The equivalent two-diode circuit of Ogawa contributes the same way as the control transistor of Tamura does to the control module of switching means. Though Ogawa does not disclose which terminal connects to which in Tamura, it would have been obvious to one of ordinary skill in the art to recognize the first conducting terminal (302 of Fig. 11C of Tamura) forming a common node between an anode of a PN diode (C10 of Fig. 4 of Ogawa) formed by the control terminal and the first conducting terminal of said control transistor and a corresponding parasitic PN diode (C20 of Fig. 4 of Ogawa) once the equivalent two-diode circuit replaces the control transistor. The combination described above shows the same as appellant filed drawing Fig. 4 does. The reference of Ashar et al. further teach usage of lateral transistor for low-voltage and fast-switching application (column 5 lines 12-29) that appeared in dependent claims. As explained, it would have been obvious to one of ordinary skill in the art that the bipolar transistor (control transistor) of Tamura can be replaced with an equivalent two-diode circuit or another type of transistor by design preference because they all perform the function of a transistor.

Thus, claim 9 and its corresponding dependent claims are properly rejected as an obvious combination under 35 U.S.C. 103(a).

(Claims 15, 23 and 33) Appellant raised the same arguments as did in claim 1 above. As explained above, claims 15, 23 and 33 are taught and obviously combined by Tamura, Clifton, and Ogawa.

Thus, claims 15, 23, 33 and their corresponding dependent claims are properly rejected as an obvious combination under 35 U.S.C. 103(a).

(Claims 10, 18, 26 and 36) As explained above, dependent claims 10, 18, 26 and 36 are properly rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura in view of Clifton, Ogawa, and Ashar et al, where Ashar et al. further teach usage of lateral transistor for low-voltage and fast-switching application (column 5 lines 12-29).

For the above reasons, it is believed that the rejections should be sustained.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Respectfully submitted,

Art Unit 2618

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